

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tresser et al.

Conf. No.: 9978

Serial No.: 09/864,015

Art Unit: 3693

Filing Date: 05/23/2001

Examiner: Lemieux, Jessica

Docket No.: CHA920010005US1
(IBM-0016)

Title: FAIR AND SCALABLE TRADING SYSTEM AND METHOD

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. 1.131

I, an Applicant in the above-identified patent application, declare as follows:

1. That I am a co-inventor of the subject matter described and claimed in the above-identified patent application.
2. This declaration is an addendum to my declaration concerning the above-identified patent application.
3. The present invention is described in a Disclosure of Invention annexed as Exhibit "A" and submitted to the IBM Corporation Patent Department on 03-20-2000.
4. Page 1 of the Disclosure of Invention references a "doclink" to view the main idea for the disclosure submitted on 03-20-2000. The present invention is described in that document annexed as Exhibit "B".

09/864,015

5. The invention was workable as of 03-11-2000 as stated in answer to Question 1 of the Disclosure of Invention (Exh. "A").

Declarant further states that the above statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

Date: 17 Apr 2009


Daniel C. Sturman

EXHIBIT “A”

**Disclosure CHA8-2000-0005**

Prepared for and/or by an IBM Attorney - IBM Confidential

Created By: Charles Tresser Created On: 03/20/2000 12:21:51 PM

Last Modified By: James Palmer Last Modified On: 03/30/2001 10:48:54 AM

Required fields are marked with the asterisk (*) and must be filled in to complete the form.

***Title of disclosure (in English)**

FAIR AND SCALABLE TRADING

Summary

Status	Final Decision (File)
Docket Family	CHA9-2001-0005
Processing Location	CHA
Functional Area	Financial Services Sector (Cole) Div 91
Attorney/Patent Professional	Douglas A Lashmit/White Plains/IBM
IDT Team	Emily Plachy/Somers/IBM; Douglas W Cameron/Watson/IBM
Submitted Date	03/20/2000 12:28:06 PM EST
Owning Division	SDG
Incentive Program	
Lab	
Technology Code	
PVT Score	No PVT score has been calculated.To calculate a PVT score, press the 'Calculate' button.

Inventors with Lotus Notes IDs

Inventors: Charles Tresser/Watson/IBM, Daniel Sturman/Watson/IBM

Inventor Name	Inventor		Inventor		Manager Name
	Serial	Div/Dept	Phone		
> Tresser, Charles P.	508807	91/3G8A	N/A		Greengard, Claude A.
Sturman, Daniel C.	893196	22/W0YD	863-7008		Chandra, Tushar

> denotes primary contact

Inventors without Lotus Notes IDs**IDT Selection**

Select Functional Area

IDT Team: Emily Plachy/Somers/IBM Douglas W Cameron/Watson/IBM	Attorney/Patent Professional: Douglas A Lashmit/White Plains/IBM
----------------------------------------------------------------------	---------------------------------------------------------------------

Response Due to IP&L : 04/27/2000

***Main Idea**

To view the main idea for this disclosure, click on this doclink --->

***Critical Questions (Questions 1-9 must be answered)**

*Question 1

On what date was the invention workable? 03/11/2000 Please format the date as MM/DD/YYYY
(Workable means i.e. when you know that your design will solve the problem)

***Question 2**

Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?

☐ Yes
☒ No

If yes, Enter the name of each publication or patent and the date published below.

Publication/Patent:

Date Published or Issued:

Are you aware of any publications, products or patents that relate to this invention?

☐ Yes
☒ No

If yes, Enter the name of each publication or patent and the date published below.

Publication/Patent:

Date Published or Issued:

***Question 3**

Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?

☐ Yes
☒ No

Is a sale, use in manufacturing, product announcement, or proposal planned?

☐ Yes
☒ No

If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made.

Product:

Version/Release:

Code Name:

Date:

To Whom:

If more than one, use cut and paste and append as necessary in the field provided.

***Question 4**

Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers?

If yes, give a date. Please format the date as MM/DD/YYYY

☐ Yes
☒ No

***Question 5**

Have you ever discussed your invention with others not employed at IBM?

☐ Yes
☒ No

If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.

***Question 6**

Was the invention, in any way, started or developed under a government contract or project?

☐ Yes
☒ No
☐ Not sure

If Yes, enter the contract number

***Question 7**

Was the invention made in the course of any alliance, joint development or other contract activities?

☐ Yes
☒ No
☐ Not Sure

If Yes, enter the following (In English):

Name of Alliance, Contractor or Joint Developer

Contract ID number

Relationship contact name

Relationship contact E-mail

***Question 8**

Have you, or any of the other inventors, submitted this same invention disclosure or similar invention disclosure previously?

☐ Yes
☒ No

If Yes, please provide disclosure number below:

***Question 9**

Are you, or any of the other inventors, aware of any related inventions disclosures submitted by anyone in IBM previously?

☐ Yes
☐ No

If Yes, please provide the docket or disclosure number or any other identifying information below:

Question 10

What type of companies do you expect to compete with inventions of this type? *Check all that apply.*

- ☐ Manufacturers of enterprise servers
- ☐ Manufacturers of entry servers
- ☐ Manufacturers of workstations
- ☐ Manufacturers of PC's
- ☐ Non-computer manufacturers
- ☐ Developers of operating systems
- ☒ Developers of networking software
- ☒ Developers of application software
- ☒ Integrated solution providers
- ☒ Service providers
- ☐ Other (Please specify below)

Question 11

If the invention relates to a product or service that is outside the scope of your business unit, please recommend IBM business unit(s), IBM location(s) or individual(s) within IBM that you think would provide a good evaluation of your invention:

Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evaluation)
 (The Patent Value tool can be used by the inventor(s) to determine the potential licensing value of your invention.)

No PVT score has been calculated. To calculate a PVT score, press the 'Calculate' button.

Market

What is the anticipated annual market size (in dollars) that will be captured by your invention?

CLAIMS

Question 1 - How new is the technical field?

Question 2 - How central is the invention to the product(s) which might be expected to contain the invention?

Question 3 - What is the scope of the claim?

PORTFOLIO NEED

What are the portfolio needs in the area of your invention?

EXPLOITATION & ENFORCEMENT

Question 1 - How easily can the use of the invention by a competitor be detected?

Question 2 - How easily can the use of the invention be avoided by a competitor?

BUSINESS VALUE

Question 1 - What percentage of the companies producing products in the field of this invention might use this invention?

Question 2 - What is the value of this patent to current or anticipated Alliance Activity between IBM and other companies?

Question 3 - What is the value of this patent to current or anticipated Technology Transfer Activity between IBM and other companies?

Question 4 - Does it result in prestige to IBM?

Evaluation

This evaluation was entered by James Palmer/Charlotte/IBM on 12/13/2000		
Team Evaluation		
What is the team's evaluation of this disclosure? Search		
Date rated : 12/13/2000		
Evaluation Comments		
*		
Final Evaluation History:	Who made the final evaluation:	Final evaluation date:
Search	James Palmer/Charlotte/IBM	12/13/00

Search Information

Date sent:	Target completion date: 01/05/2001	Search Results Received date:
Who was the search sent to (This area is to designate a Local Searcher name or WAIPL): Abdi Dirle/Arlington/IBM Joy Doyle/Arlington/IBM		
Send search request to:	Search Type: <input checked="" type="checkbox"/> Patentability <input type="checkbox"/> Clearance <input type="checkbox"/> Validity <input type="checkbox"/> State of Art	
Features to be searched: *		

Search Office Information

Target completion date: 01/05/2001	<input type="checkbox"/> Search has been delayed	Ship/Return date:
Search Conducted By		
Comments		

Final Decision

This decision was entered by James Palmer/Charlotte/IBM on 03/30/2001	
Decision: File	Status: N/A
PPM Area: 600 - Software related services; applications & solutions	Attorney Rating: 2
Date of Final Decision : 03/30/2001	

Additional filing information

Planned Filing date:
Filing comments:

Dates have been entered in the format MM/DD/YYYY

Additional decision comments

EXHIBIT “B”



Main Idea for Disclosure CHA8-2000-0005

Prepared for and/or by an IBM Attorney - IBM Confidential

Archived On 12/14/2000 01:04:28 AM

Title of disclosure (in English)
FAIR AND SCALABLE TRADING

Main Idea

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

Field of the Invention

Recent years have been marked by a very fast development of electronic commerce. In particular, the development of the World Wide Web (www) has prompted the development of discount brokerage over the www and several exchanges and other companies around the world want to offer on-line trading. All such companies (called *market makers* as a general denomination in the sequel) expect to reach massive numbers of customers all around the world. In some cases, they offer (or plan to offer) trading 24 hours a day, 7 days a week (7/24 trading). With the more recent development of wireless access to the www, the number of people expected to trade on-line is expected to grow even more, so that successful exchanges or brokerage firms offering such services would have to handle many millions of trades a day.

Problems to be solved

In order for such trades to be fair, all people who trade in such manner would need to have access to real time feed of the quotes of the securities they are trading. Present day technology does not provide means to so largely distribute real time

quotes. It is important to notice that not being able to distribute real time quotes, while some have access to these quotes, creates unfairness for the people who have bigger delay on the reception of the quote: this unfairness is even more severe for highly volatile markets, and one may expect that worldwide easy access would often generate high volatility. Furthermore, on-line trading is much more accessible from the www than from, say, private networks. The lack of guaranteed on-time delivery on the Internet, and more probable breakdowns as could be caused by saturated systems, would then create another source of unfairness. The development of Information Technology does not guaranty that this problem will disappear on the only basis of technological progress, inasmuch as the demand is expected to grow as well.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

SUMMARY OF THE INVENTION

It is therefore the object of the present invention to disclose a method to offer trade on the www which is at the same time fair to all participants, and also considerably more scalable than trading based on real time price adjustment. Yet this trading method is dynamic enough so that the market could reflect the vitality of the evolution of offer and demand on the securities which would be offered by market makers using the invention.

An implementation of the invention will be determined by two time intervals, $t_0 > t_1$; for convenience, we will set $t_2 = t_0 - t_1$. For a given security S_0 , the time of pricing and execution will be a discrete sequence $T(i), T(i+1), T(i+2)$, where for any j ,

$$T(j+1)-T(j)=t_0.$$

Notice that a simple modification consists in letting t_0 be variable instead of constant, to compensate for possible changes in the rate of transactions, in particular predictable ones such as corresponding to daily rhythms or other calendar linked rhythms.

Depending on choice, the series can run forever (7/24 trading) or can be reinitialized every day or on some special set of circumstances.

At any time, or only after $T(i-1)$ (depending on the rules imposed for the security S_0 by the market maker), anyone trading on S_0 can enter new orders participating to the auction at time $T(i)$. These can be a simple orders, limit orders, execute or cancel orders, or any of a variety of orders used on traditional markets. Orders for the time $T(i)$ auction on S_0 are considered only if they are entered before $T(i)-t_2$, as guaranteed by a form of time stamping acknowledged by the market maker, and compatible with basic fairness principles and regulations (regulations may vary depending both on the country from which the market maker operates, and the country in which the customer operates). The authorities which may provide such time stamping would be for instance some widely geographically distributed gateways to the network used for the security at hand. At time $T(i)$, the new price $P(S_0, T(i))$ of the security S_0 is fixed according to some well established (and preferably or by law, easily publicly available) auction rule: for instance, the price may be chosen to maximize the money volume of transactions, or to maximize the number of orders which can be traded at that price at that time.

The new price is then made public and all orders compatible with $P(S_0, T(i))$

which were time stamped before $T(i)-t_2$, have reached the market maker by $T(i)$, and not canceled by then, are executed.

Internet Service Providers (ISPs) may offer several forms of contracts to the bidder. For instance, for the cheaper price, the customer would take the risk that his/her order does not arrive to the market maker by $T(i)$, while for the higher price, the provider would guaranty either $P(S_0, T(i+1))$ or the best of the prices $P(S_0, T(i))$, $P(S_0, T(i+1))$, ..., $P(S_0, T(i+n))$, where $P(S_0, T(i+n))$ is the time by which the order reaches the market maker whenever the order is time stamped by $T(i)-t_2$.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

N/A

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

N/A